

***Innovating for Better Environmental Results:  
A Strategy to Guide the Next Generation of Innovation at EPA***

**Fall 2002 Progress Report**

**Strengthen Innovation Partnership With States and Tribes**

**Revitalizing NEPPS** - Following our joint evaluation of the National Environmental Performance Partnership System this Spring, EPA and ECOS are working to resolve issues surrounding the primary partnering tool: Performance Partnership Agreements (PPA). At the annual ECOS meeting in October, EPA Administrator Whitman announced that PPAs will be the single document defining environmental performance if the State so chooses, joint EPA-State evaluations and mutual accountability. In doing so, she signaled EPA's position on the relevance of PPAs relative to other types of agreements. Because no one PPA is likely to work for all States, the Administrator also committed EPA to working with States to define a range of models that could accommodate different States' needs and interests. EPA Deputy Associate Administrator for Intergovernmental Relations, Dona DeLeon, and the ECOS Planning Committee are now collaborating on how this updated vision for NEPPS can be realized. Results from the joint evaluation continue guiding this work, and will be finalized by EPA and ECOS later this year.

**New State Innovation Pilot Grant Program Launched** - Under a new pilot grant program announced by EPA Administrator Whitman in April, EPA recently selected three State innovation projects for funding. The program is designed to support State innovation and address environmental priorities identified in EPA Innovation Strategy. The first solicitation requested projects that test innovative permitting approaches that use incentives to motivate "beyond-compliance" environmental performance, or move whole sectors toward improved environmental performance. Arizona will develop a web-based system that will simplify and expedite storm water permitting by enabling regulatory staff to automatically assess the applicant's permitting status and provide notification about what is needed to ensure compliance. Delaware will develop an integrated strategy for improving environmental performance within a sector that is facing new air quality requirements - autobody repair shops. And Massachusetts will develop a watershed-based permitting approach for improving water quality in the Assabet National Heritage River.

**States and EPA Agree to Partner on National Environmental Innovation Symposium** - At their annual meeting in October, ECOS agreed to partner with EPA on another National Environmental Innovations Symposium. The first symposium, held in December 2000, received highly favorable reviews by participants, and revealed strong interest in a follow-up event that would provide more opportunity for States and EPA to showcase and discuss innovative approaches for improving environmental results. EPA and ECOS will be working in cooperation with the Council for Excellence in Government, which also partnered on the first symposium.

**EPA and Nevada Launch Voluntary Program to Reduce Mercury Emissions** - EPA Region

9 and Nevada officially launched the Mining Partnership Program at a recent meeting of the Nevada Mining Association. The goal of this program is to reduce mercury air emissions from Nevada gold mines below levels required by current regulations. Mines have two options for achieving these voluntary reductions: one that focuses on emission control technologies and another that focuses on process modifications. Twelve mines owned by four companies have signed on as charter members. Preliminary projections for these mines show that mercury air emissions will be reduced by more than 7,000 pounds over the next 3 years, making this voluntary initiative more effective at reducing mercury loadings than all other EPA regional and national programs combined. Efforts are now underway to recruit additional mining companies into the program.

**New System Will Provide Better Accountability for Pesticide Labeling** - EPA and State regulatory staff have developed a new web-based system to address issues related to pesticide labeling. This system responds to State concerns about a variety of issues, such as inconsistent information, difficulty in enforcing labeling requirements, and determining who to contact and how to proceed to get issue resolution. Accessible to all States, EPA regions, U.S. territories and tribes that are regulating pesticides, the State Labeling Issues Tracking System, or SLITS, will enable users to communicate more efficiently and provide a response on most issues within 2 days - more than twice as fast as previously.

## **Focus on Priority Problems**

### **Reduce Greenhouse Gases**

**Promoting Green Buildings in the Mid-Atlantic** - EPA Region 3 is working to create a Mid-Atlantic network for promoting green building. Compared to traditional building, green buildings generate less pollution and use less energy. The benefits from pursuing energy savings alone could be significant, given that nearly two-thirds of the country's energy use is attributed to residential and commercial buildings. Working with the ENERGY STAR program and the Delaware Valley Green Building Council, EPA Region 3 is now approaching developers planning highly visible new and renovated projects in the Philadelphia area. In one case, a developer has agreed to build a new 52-story office building that would lead to certification under the nationally-recognized Leadership in Energy and Efficient Design national rating system. The building will also feature an informational display to educate visitors on its green features, and those found in other projects in the Delaware Valley area.

**Hotel Industry Gets New Energy Efficiency Tool** - ENERGY STAR has added another tool for improving energy efficiency, this one for the hotel industry. For the first time, hotels can benchmark their energy performance against others on a nationwide scale of 1-to-100. Each year, the hotel industry spends almost \$5 billion on energy bills. If hotels improved their energy efficiency by an average of 30 percent, the annual electricity bill savings would be nearly \$1.5 billion and almost 6 million fewer metric tons of carbon dioxide would be emitted.

**Study to Evaluate Climate Change Benefits from Byproduct Synergy** - EPA is supporting a study by the Center for Clean Air Policy on the energy efficiency and climate change benefits resulting from byproduct synergies. These processes use manufacturing byproducts from one company as raw materials for another. Along with reducing waste, they can help companies cut energy needs, reduce raw material consumption, decrease landfill demand, and potentially earn credit for greenhouse gas emission reductions. Results from the study, which will focus on companies in New Jersey, Delaware and potentially other States, are expected in approximately 18 months.

### **Reduce Smog**

**Regional Partnership Aims to Improve Environmental Conditions in Growing Southeastern Urban Area** - EPA is supporting a regional partnership that aims to improve air quality and other environmental conditions in a rapidly growing region that spans Charlotte, North Carolina and Rock Hill, South Carolina. Rather than dealing with issues piecemeal, local officials are engaging a variety of partners in the development of a regional strategy that will take all environmental conditions into account. During phase one of the project, a \$100,000 grant from EPA was used for regional consensus-building, education and development of a tool kit that identifies air, water and land use practices for enhancing environmental quality. Implementing these practices will be the focus of phase two, which will be funded, in part, with an additional \$250,000 from EPA. Phase III will bring regional leaders together to create an integrated strategy for addressing air quality, specifically ozone, particulate matter and air toxics as they relate to transportation, energy, land use and economic development. EPA's goal in supporting this project is to develop tools and approaches that can be applied to improve conditions in other parts of the country.

**Retrofitting Helps Clean Up Emissions from Heavy Duty Diesel Engines** - While EPA regulations require new diesel engines to meet low emission standards, existing engines are still emitting smog forming and toxic pollutants. EPA's Voluntary Diesel Retrofit Program is proving to be a creative and effective way of addressing these emissions. Since its inception in March 2002, public and private partners have committed to retrofit over 87,000 diesel engines, resulting in the elimination of approximately 26,000 tons of NOx and 12,000 tons of particulate matter. For example, in Region 6, under the Adopt-a-Bus initiative, EPA is partnering with the American Lung Association, State and local officials, and corporate and private sponsors to replace aging diesel school buses with new "clean fuel" buses. The corporate and private sponsors provide financial support to help local school districts convert to cleaner fuels and buses. In return, they get recognition as good corporate citizens, tax benefits, and the sense of stewardship that comes from reducing emissions for children and communities as a whole.

### **Restore and Maintain Water Quality**

**Nominations Being Accepted for \$21 Million Watershed Protection Grant Program** - EPA is accepting nominations for President Bush's Watershed Protection Initiative. Governors and Tribal leaders are invited to submit nominations for projects that would help promote and advance successes in up to 20 watersheds. Project awards are expected to range from \$300,000 to \$1.3 million, and will be made available in the form of grants to help local entities protect and restore their local watershed. Along with demonstrating innovative approaches to environmental problem-solving, strong candidates are expected to produce environmental improvements in a relatively short time frame, show broad stakeholder involvement, and be compatible with federal or state programs. Nominations are being accepted until November 21. Final selection and funding are contingent on favorable Congressional action on the appropriation request.

**Stakeholders Unite to Clean Up Contaminated Sediments** - In the Anacostia River watershed, EPA is working with the Anacostia Watershed Toxics Alliance on a watershed approach for cleaning up contaminated sediments. An aggressive Toxics Management Strategy is being developed, but rather than waiting for its completion or attention through Superfund, AWTA members have been effectively cleaning up their sites and stopping the flow of contaminants to the river. They have already repaired over 7.5 miles of leaking storm sewers; constructed 6 sand filters to reduce trash flow to the river; built protective covers over 30 acres to reduce contaminate migration; and removed over 7,500 gallons of coal tar, 20,000 gallons of petroleum, and 25 pounds of mercury. In addition, members have abated over 27,000 tons of contaminated soil and 1 million gallons of surface and ground water. To date, AWTA has leveraged over \$13 million in private and other public support to supplement EPA and local budgets to get this difficult problem addressed. Congress has rewarded their efforts with \$3 million for projects identified in the strategy. This stakeholder approach to contaminated sediments is highly transferrable, and is now being shared with other watershed committees.

### **Close the Water Infrastructure Gap**

**EPA Releases "Clean Water and Drinking Water Infrastructure Gap Analysis"** - In September, EPA released an analysis that underscores the need for innovative approaches to water infrastructure. Assuming no growth in revenues, the need for clean water -- in both capital and operations and maintenance costs -- exceeds \$270 billion over 20 years. For drinking water, the gap approaches \$265 billion for the same period. The size of these gaps can be reduced substantially if a real growth in revenues is projected over the same period. Following the release, EPA Administrator Whitman called for a national forum for experts and stakeholders to discuss innovative approaches for meeting infrastructure challenges. Planning for such an event in January 2003 is underway.

### **Expand Brownfields**

**National Waste Program Gearing Up for More Innovation Projects** - EPA's Innovation Work Group, established by the Office of Solid Waste and Emergency Response and with

representation from regional and national waste programs, has announced another competition for projects that can help advance national goals related to energy recovery, waste minimization, recycling, environmental protection through land revitalization, and retail partnerships. The first twelve pilot projects were announced in June 2002. Support for pilot projects enables EPA to test new ideas and strategies for environmental and public health protection, and ultimately, to make waste programs more efficient, effective, innovative and user-friendly. While proposals must come from regional or national waste program staff, they may also involve States, Tribes, and other outside partners. Two rounds of project solicitations will be held in FY 2003. Due dates for submissions are November 20, 2002 and April 15, 2003.

#### **Communities Get Support for Brownfields Revitalization and Smart Growth Goals -**

In July, EPA awarded \$405,000 to help communities apply smart growth principles in the redevelopment of brownfields. Nine communities in nine different States will receive \$45,000 each to support activities, such as identifying and marketing brownfield sites to redevelopers, and developing mathematical models to assess smart growth approaches to redevelopment projects.

**Building Community Support for Brownfields Redevelopment** - EPA is working with the National Park Service to transfer the Groundwork Trust community development model, found in England, to communities in this country. Through partnerships with local government agencies and the private sector, local residents are engaged to build consensus on the reuse of brownfields for the community benefit. As a result of Groundwork USA's efforts, derelict land and wasted public space is transformed into valued community assets, such as pocket parks or community gardens. They are also enhancing the marketability of brownfields by improving the surrounding area to signal community pride and rejuvenation.

## **Diversify Environmental Protection Tools and Approaches**

### **Information**

**New Tools Aim to Reduce Chemical Risks** - In September, EPA, Environmental Defense, and a consortium of chemical industry trade associations released the PBT Profiler, a powerful online chemical screening tool that helps companies screen for persistent bioaccumulative and toxic (PBT) chemicals. This tool, along with an overarching Pollution Prevention (P2) Framework, enables companies to select safer alternatives in new and existing products and to incorporate pollution prevention into the chemical development process. Using these tools that were first tested under Project XL, industry has already screened thousands of chemicals, resulting in demonstrable risk reduction and significant economic benefits. Based on initial results, EPA is launching the Sustainable Futures Initiative that will offer regulatory flexibility to companies who use the P2 Framework and the PBT Profiler during research and development, resulting in low hazard/low risk new chemical submissions. Such flexibility would cut the normal waiting time for manufacturing in half. Ultimately, EPA expects the results from these pilot tests will provide the information needed to offer this flexibility on a broader scale. Chemical industry

partners, which continue to be very supportive of this approach, include the American Chemistry Council, the Chlorine Chemistry Council, and the Synthetic Organic Chemical Manufacturers Association.

**New Web Sites Address State Needs -** Recognizing the power of the Internet to provide information quickly and easily, EPA is developing new web sites to help States address priority issues. The “It All Adds Up to Cleaner Air” web site was launched in partnership with the Department of Transportation to help state, local and other organizations develop outreach campaigns for addressing transportation and air quality issues. And an enhancement on the Clean Markets web site means faster and easier access to emissions and facility data for the thousands of units affected by the Acid Rain Program and the NOx Budget Program (the nitrogen oxides emissions reduction program for mitigating ozone problems in the Northeast).

**Computer-based Tools Add Value to Environmental Information -** EPA is supporting development of computer-based tools that can help transform environmental data into useful information. In Region 3, a new desktop mapping tool for locating and obtaining information on drinking water sources will help save time in responding to emergency situations, and is already being considered by other Regions. And the State of Washington, with support from EPA Region 10, has created a computer-based program that offers new visually interesting formats for presenting Toxics Release Inventory data, making it more meaningful for school children, environmental planners, community activists, and other users.

**Partnering with Meteorologists to Share Environmental Information with the Public -** EPA is partnering with the American Meteorologists Society (AMS) to promote better understanding of watershed issues. Watersheds have a significant effect on ecosystem health, water supplies, commerce, recreation and other important issues and meteorologists have a unique ability to bring scientific information to the public. Recognizing an educational opportunity, EPA and AMS cosponsored a workshop for weathercasters that explained the watershed concept, and how and why they might incorporate watershed information into their reporting.

### **Incentives**

**New Incentives Proposed for National Environmental Performance Track -** In August, proposed new incentives that would reduce regulatory paperwork for Performance Track facilities. The proposed incentives would allow facilities to store hazardous waste up to 180 days without obtaining a permit under the Resources Conservation and Recovery Act (RCRA) or having interim status, and simplify their reporting under the Maximum Available Control Technology provisions of the Clean Air Act (CAA). They would also allow reporting modifications for Performance Track facilities that are Publicly Owned Treatment Works regulated by the Clean Water Act (CWA). Additionally, EPA is soliciting comments on a potential pilot project that would allow Performance Track facilities to consolidate reporting of data that are routinely submitted under the CAA, CWA, RCRA and Emergency Planning and Community Right-to-know Act into a single report. To date, nearly 300 facilities have been selected for Performance Track membership.

### **Environmental Management Systems (EMS)**

**EPA Announces Latest Position on EMS** - In May, EPA released a new position statement in support of Environmental Management Systems (EMS). The statement promotes broader use of EMS, which can help facilities assure compliance, and achieve cost savings, operational efficiency and improved supplier performance. The statement also commits EPA to leading by example, by implementing EMS at its own facilities.

**First EPA Facility Gains ISO 14001 Certification** - In September, EPA's Ft. Meade laboratory in Maryland became the first EPA facility and the first civilian facility with an EMS certified by the International Organization for Standardization (ISO 14001). Only 18 of the approximately 12,000 federal facilities have achieved this certification so far. Overall, the federal government's "scorecard" on EMS shows 58 facilities having some kind of active EMS in place. With this latest ISO certified facility and other actions, EPA ranks as an EMS leader within the federal government.

**New EMS Assistance Centers Open** - Businesses around the country can now get EMS assistance by contacting one of eight new EMS Resource Centers. Located in academic and nonprofit organizations, and selected by EPA based on their history of providing excellent environmental assistance, these centers will provide communities with technical expertise, field-tested tools, and support for EMS implementation. They are modeled after the highly successful PEER Centers which have been established to provide similar EMS support for municipalities.

**Supporting EMS Development Along the U.S./Mexico Border** - In an effort to improve environmental performance from small and medium-sized businesses along the U.S./Mexico border, EPA is funding projects with Texas and California that are designed to offer businesses EMS training and assistance. Both projects will use EMS guidance created by the Commission on Environmental Cooperation (created under the North American Free Trade Agreement). The Texas pilot will assist selected small and medium-size businesses along the border, and contribute to the State's work in improving overall performance at regulated facilities. The California project has the potential to help reduce some of the sources of trans-border pollution coming into San Diego County, while also improving environmental performance of selected small and medium sized suppliers in other parts of the U.S. and Mexico.

### **Results-based Performance Goals and Measures**

**Projects Chosen to Strengthen Evaluation and Performance Measurement at EPA** - Under an internal competition announced in May 2002, EPA is evaluating programs and developing performance measures for select programs. These efforts are designed to improve EPA's evaluation and performance measurement capabilities. Among the projects selected for evaluation are the National Environmental Performance Track program in EPA Region 1, a partnership with the National Park Service for addressing environmental problems in national parks in Region 8, and the Office of Pesticide Program's program for displacing high risk

pesticides from the marketplace. EPA's expanding Brownfields program will be the subject for one of the performance measurement projects.

**First State of the Waters Report Released for Midwest -** To mark the 30<sup>th</sup> anniversary of the Clean Water Act, EPA Region 5, Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin issued the first State of the Waters report outlining the successes, goals, and challenges for improving water in the Midwest. The report will provide a foundation for future reporting on water quality. With its emphasis on environmental goals and outcomes (rather than the more traditional activity-based measures), the report also marks an important transition in the Region's water quality performance-based measurement system.

**Resource Conservation Challenge Sets National Waste Goals -** Urging Americans to take renewed responsibility for their individual impact on the environment, EPA's national waste program has kicked off a Resource Conservation Challenge. This campaign challenges Americans to meet or beat two goals by 2005: boosting the national recycling rate from 30 percent to at least 35 percent and curbing by 50 percent the generation of 30 harmful chemicals normally found in hazardous waste.

### **Foster a More Innovative Culture and Organizational Systems**

**Successful Innovations Getting Applied on Broader Scale -** To maximize the benefits from innovative approaches, EPA is working to promote adoption of successful pilots on a broader scale. As the preceding section describes, EPA is scaling up use of two companion information tools - the PBT Profiler and P2 Framework - within the chemical industry through the Sustainable Futures initiative. In addition, EPA is promoting Massachusetts Environmental Results Program (ERP) to other States. Currently, Rhode Island, Florida, Maryland, and Tennessee and the District of Columbia are applying the ERP approach to address problems with a variety of sectors, and Delaware recently received a grant (under the State Innovation Pilot Grant program) to implement ERP for autobody repair shops. Maine, New Hampshire, New Jersey, and Vermont are now investigating how ERP might be used to solve sector-specific environmental problems in their States.

**Creativity and Innovation Steering Committee Fostering Innovation Internally -** EPA's Creativity and Innovation Steering Committee is providing leadership to foster a more innovation-friendly culture and organizational systems within the Agency. Set up by EPA's Innovation Action Council, its current priorities include setting aside resources to support State and EPA innovation projects, encouraging national programs and regions to use a set of innovation-leading questions in decision-making, implementing several reward and recognition programs, and establishing a screening process to ensure that public correspondence is readily understood. In December, this group will begin developing a long-term strategy for enhancing EPA's creativity and innovation over the next several years.

**Investment To Support Innovative Approaches for Enhancing Human Capital -** EPA's Office of Administration and Human Resources Management is investing \$200,000 this year to



promote and encourage innovative and creative projects for enhancing human capital. The Human Capital Innovations Fund will offer financial support for initiatives that explore innovative approaches for integrating human capital efforts with activities that are undertaken in support of EPA's mission or that strengthen ties with the public - through both e-government and front line environmental efforts. Some of the diverse projects supported, to date, include physical improvements to EPA Region 1's building and an assistive technology center being developed by the Office of Environmental Information, both of which will help people with disabilities perform their jobs, and workforce education and training programs in EPA Regions 5 and 8. EPA plans to fund additional projects annually, and to evaluate each one for lessons learned that can be shared throughout the Agency.

**New Leadership for Innovation in EPA Region 10** - EPA Region 10 has created a counterpart to the Innovation Action Council, the Agency's senior leadership group responsible for overseeing and promoting innovation in EPA programs and regions. The Regional Innovation Council will be responsible for communicating the innovation message and philosophy, identifying and addressing systemic barriers to innovation, identifying targets of opportunity for innovative approaches, and showcasing regional and national innovations to support wider adoption. The Council will also play a role in administering innovation reward and recognition programs, and for moving innovations forward internally by rendering timely decisions on innovation resource requests.

**Rotational Assignments Provide Individual and Organizational Benefits** - EPA Region 10 has recently completed its third round of staff rotations. The "1-2-3" process as it is known (because employees can specify first, second, and third preferences for new assignments) gives managers and staff the opportunity to take on new roles and responsibilities. From a broader perspective, this process enhances organizational health by rotating staff to higher priority environmental projects; creating better matches between employees' knowledge, skills, and interests and their work; and improving decision-making and problem-solving by giving employees more varied experiences in their work assignments. Eighty-seven employees participated in the latest rotational process.